

IN THE SPECIFICATION:

All references to page numbers and lines are based on the certified English translation of the subject application.

Please amend the paragraphs at page 10, line 9 through page 12, last line, as follows:

~~Diagram~~ Fig.1: Spectrophotometric scans of aqueous dispersions
(Example 1)
Cetyl palmitate – Tego Care, (2) Miglyol – Tego Care, (3) Cetyl palmitate, (4) Tego Care

~~Diagram~~ Fig.2: Spectrophotometric scans of aqueous dispersions
(Example 2)
Stearyl alcohol – Tween 80, (2) Miglyol – Tween 80, (3) Stearyl alcohol, (4) Tween 80

~~Diagram~~ Fig.3: Spectrophotometric scans of lipid films
(Example 3)
Cetyl palmitate – Tego Care, (2) Miglyol – Tego Care

~~Diagram~~ Fig.4: Spectrophotometric scans of lipid films
(Example 4)
10% cetyl palmitate, (2) 20% cetyl palmitate, (3) 30% cetyl palmitate, (4) 40% cetyl palmitate

Diagram Fig.5: Spectrophotometric scans of lipid films
(Example 5)
Nanoparticles (d50% 138nm), (2) Microparticles (d50% 4.6 μ m)

Diagram Fig.6: Thermogram of a cetyl palmitate SLN dispersion (top) in
comparison with the dispersion incorporated into a O/W-cream
(middle) (standardized on the proportion of SLN-dispersion as
well as the pure O/W-cream without SLN (bottom).)

Diagram Fig.7: Spectrophotometric scans of polystyrene particle films
(Example 7)
60nm, (2) 100nm, (3) 528nm, (4) 949nm, (5) 3000nm

Diagram Fig.8: Spectrophotometric scans of lipid films for determining film
uniformity
(Example 8)
(1) – (6): different positions of the cuvette in the holder

Diagram Fig.9: Spectrophotometric scans of lipid films
(Example 9)
cetyl palmitate – Tego Care – Eusolex 4360, (2) cetyl palmitate
– Tego Care

Diagram Fig.10: Spectrophotometric scans of lipid films

(Example 10)

10% Eusolex 4360, (2) 5% Eusolex 4360, (3) 1% Eusolex 4360

Diagram Fig.11: Spectrophotometric scans of lipid films

(Example 11)

cetyl palmitate – Tego Care – Eusolex 4360, (2) Miglyol – Tego
Care – Eusolex 4360

Diagram Fig.12: Spectrophotometric scans of lipid films

(Example 12)

micrometer particles with Eusolex 4360 (d50% 12 μ m), (2)

micrometer particles (d50% 4.6 μ m), (3) nanometer particles with
Eusolex 4360 (d50% 138nm)

Diagram Fig.13: Spectrophotometric scans of lipid films

(Example 13)

cetyl palmitate – Tego Care – Eusolex 4360 – vitamin A
palmitate, cetyl palmitate – Tego Care – Eusolex 4360

Diagram Fig.14: Spectrophotometric scans of lipid films

(Example 14)

cetyl palmitate – Tego Care – Eusolex 4360 – vitamin E, cetyl

palmitate – Tego Care – Eusolex 4360

~~Diagram~~ Fig.15: Spectrophotometric scans of lipid films
(Example 15)

cetyl palmitate – Tego Care , (2) cetyl palmitate – Tego Care –
Aerosil 200

~~Diagram~~ Fig.16: Spectrophotometric scans of lipid films
(Example 16)

cetyl palmitate – Tego Care – Eusolex 4360, cetyl palmitate –
Tego Care – Eusolex 4360 – Aerosil 200

~~Diagram~~ Fig.17: Spectrophotometric scans of lipid films
(Example 17)

cetyl palmitate – Tego Care (self-absorption lipid particles),
calculated absorption of cetyl palmitate - Tego Care – Eusolex
4360 – lipid particles, Absorption ascertained in practice of cetyl
palmitate – Tego Care – Eusolex 4360 – lipid particles
(synergism)

~~Diagram~~ Fig.18: Electron microscope photograph of the sealed lipid film from
Example 18

Amend the paragraph at page 23, 15 lines from bottom to page 24, line 7;

A lipid particle dispersion consisting of 10% (m/m) cetyl palmitate, 1.2% (m/m) polyglycerol methylglucose distearate (Tego Care 450) and water was produced by high pressure homogenization. The mixture of lipid and emulsifier was melted at 75°C and dispersed in the aqueous solution with an Ultra-Turrax T25 with dispersing tool S25, Janke und Kunkel (8000 rpm for 1 minute). The obtained pre-emulsion was then homogenized with an APV Gaulin LAB 40 homogenizer at 500 bar with 3 cycles at 75°C. Lipid particles resulted with a PCS diameter of 221 nm and a polydispersity index of 0.06. For comparison, an emulsion system was produced in which the 10% cetyl palmitate was replaced by 10% Miglyol 812. The production parameter was dispersion with the Ultra-Turrax (8000 rpm for 1 minute). The UV-blocking action was examined with a Uvikon 940 spectrophotometer, Kontron, in the wavelength range of 250–450 nm. For this, the lipid particle dispersion and emulsion were diluted (5 µL in 1 ml water), and measurement was against water. Over the measured range, the emulsion showed a constant absorption of approx. 0.15 and the lipid particle dispersion an absorption increase of from 0.1 at 450 nm to 0.45 at 250 nm. Measurements of a pure lipid solution (in 96% ethanol) or an aqueous surfactant solution of the same concentration did not absorb over the whole measurement range (Diagram Fig. 1).

Amend the paragraph at page 24, lines 10-18;

Lipid particles und emulsions were produced as in Example 1; the surfactant was 1.2 % Polysorbat 80 (Tween 80). In the spectrophotometer, the Miglyol emulsion merely showed an absorption value of 0 - 0.05 over the whole range (i.e. this is near to the background noise of the apparatus); the stearyl alcohol lipid particles had an absorption increasing from 0.3 at 450 nm to 1.3 at 250 nm. Measurements of a pure lipid solution (in 96% ethanol) or an aqueous surfactant solution of the same concentration did not absorb over the whole measurement range (Diagram Fig. 2).

Amend the paragraph at page 24, 11 lines from bottom to page 25, line 2:

A lipid particle dispersion was prepared according to Example 1 with cetyl palmitate and the surfactant polyglycerol methylglucose distearate (Tego Care 450). For comparison, the emulsion with Miglyol and the surfactant Tego Care was produced as described in Example 1. The two formulations were applied to a TransporeTM tape stuck onto a quartz measuring cuvette (50 μ l on 4.5 cm² TransporeTM tape) and immediately measured. The UV-blocking action of the films which formed was examined in the spectrophotometer, uncoated TransporeTM tape being stuck onto a cuvette as reference. Over the measured range (450 - 250 nm), the result for the emulsion film was a relatively constant absorption of 0.25 - 0.30; the absorption of the lipid particles increased from 0.45 at 450 nm to 1.1 at 280 nm (Diagram Fig. 3).

Amend the paragraph at page 25, lines 5-13:

Lipid particles comprising cetyl palmitate stabilized with Tego Care were produced at different lipid concentrations. The lipid concentrations were 10 %, 20 %, 30 % und 40 % with proportional Tego Care concentrations of 1.2%, 2.4%, 3.6% and 4.8%. The corresponding laser diffractometry LD 50 % diameters were 138 nm, 214 nm, 142 nm and 178 nm, with an increasing lipid concentration. The absorption of the films applied to TransporeTM tape analogously to Example 3 increased in relation to the concentration (Diagram Fig. 4).

Amend the paragraph at page 25, 10 lines from bottom to page 26, line 4;

Lipid particles were produced analogously to Example 1. The composition was 10% lipid, 1.2% surfactant and water. Manufacture of the lipids took place by dispersion in the molten state (75°C) with a high-speed Ultra-Turrax mixer (8000 rpm for 5 minutes) and alternatively by high-pressure homogenization (conditions as in Example 1). The particle size with the mixer was 4.6 μ m (d50 % - 50 % diameter), the particle size after high-

pressure homogenization 138 nm (d50%). Both lipid particle dispersions were applied to Transpore[™] tape as described in Example 3 and after drying at room temperature were immediately measured in the UV spectrophotometer. The absorption over the whole measurement range was roughly 0.45 for the lipid micro-particles and increased for the lipid nanoparticles produced by high-pressure homogenization, from 0.45 at 450 nm to 1.1 at 280 nm (~~Diagram~~ Fig. 5).

Amend the paragraph at page 26, lines 8-26:

Lipid particles with the following composition were produced: 10% cetyl palmitate, 1.2 % polyglycerol methylglucose distearate (Tego Care 450) and water. The mixture of lipid and emulsifier was melted at 75°C and dispersed in the aqueous solution with an Ultra-Turrax T25 with dispersing tool S25, Janke and Kunkel (8000 rpm, for 1 minute). The pre-emulsion obtained was then homogenized with an APV Gaulin LAB 40 homogenizer at 500 bar with 3 cycles at 75°C. Lipid particles formed with a PCS diameter of 220 nm and a polydispersity index of 0.06. The lipid particles were mixed in the ratio of 1 : 1 with an O/W-emulsion obtainable in the trade. The mixing took place by stirring in a fanta bowl with a pestle. The integrity of the particles was determined by differential scanning calorimetry (DSC). The melting peak of the lipid particle dispersion was 16.8 J/g; after incorporation of an equivalent amount of lipid particle dispersion into the cream, the melting peak in the cream was 16.6 J/g. The particles were physically stable for 6 months. After 6 months' storage at 20°C, the melting peak was 16.2 J/g and was not significantly different from the initial value (~~Diagram~~ Fig. 6).

Amend the paragraph at page 26, 2 lines from bottom to page 27, line 5;

2.5% latex dispersions with particle sizes of 60 nm, 100 nm, 528 nm, 949 nm und 3000 nm were applied to Transpore[™] Tape analogously to Example 3 and immediately measured over the range from 450 nm to 250 nm. For particle sizes up to 528 nm, the following applies: the larger the particle, the greater the absorption. Above approx. 1 µm,

the absorption decreases again (more pronounced decrease in the longer-wave range) (Diagram Fig. 7).

Amend the paragraph at page 27, lines 8-15;

A lipid particle dispersion of 10 % cetyl palmitate, 1.2 % polyglycerol methylglucose distearate (Tego Care 450) and water was produced. 50 μ l of this dispersion was uniformly applied to a 4.5 cm² area of a quartz cuvette stuck on with Transpore[™] tape and measured over the wavelength range from 450 to 250 nm. The cuvette was secured in the holder in different positions and the film thus measured over a length of 8 mm. The absorption values hardly fluctuate, and so the film was uniform (Diagram Fig. 8).

Amend the paragraph at page 27, 13 lines from bottom to page 28, line 4;

A lipid particle dispersion was produced according to Example 1 with cetyl palmitate and the surfactant polyglycerol methylglucose distearate (Tego Care 450), the lipophilic broadband filter 2-hydroxy-4-methoxy-benzophenone (Eusolex 4360) being melted with the lipid phase in a concentration of 10% relative to the lipid (corresponds to 1% relative to the total mixture) and thus incorporated. The pure lipid particle dispersion, prepared as described in Example 1, served as a comparison. The two formulations were applied to a Transpore[™] tape (50 μ l on 4.5 cm² Transpore[™] tape) stuck onto a quartz measurement cuvette, spread and immediately measured. The UV-blocking action of the formed films was examined in the spectrophotometer, uncoated Transpore[™] tape being stuck onto a cuvette as reference. In the range below 380 nm, the dispersion containing UV blocker showed a clearly higher absorption, with the pattern typical of Eusolex 4360 (peaks at approx. 335 und 290 nm), than the pure lipid particles (Diagram Fig. 9).

Amend the paragraph at page 28, lines 8-15;

Lipid particle dispersions were produced according to Example 1 with 10% cetyl palmitate,

1.2% polyglycerol methylglucose distearate (Tego Care 450) and water whereby 10%, 5%, and 1% 2-hydroxy-4-methoxy-benzophenone (Eusolex 4360) being incorporated relative to the lipid analogously to Example 9. The dispersions were applied to Transpore[™] Tape and measured, according to Example 3. The absorption was concentration-related, though not proportionally (Diagram Fig. 10).

Amend the paragraph at page 28, 13 lines from bottom to page 29, line 2;

A lipid particle dispersion was produced according to Example 9 with cetyl palmitate, the surfactant polyglycerol methylglucose distearate (Tego Care 450) and 10% 2-hydroxy-4-methoxy-benzophenone (Eusolex 4360), relative to the lipid content. The emulsion with Miglyol and the surfactant TegoCare, produced as described in Example 1 served as reference, 10% Eusolex, relative to the Miglyol content, also being incorporated here. The two formulations were applied to a Transpore[™] tape stuck to a quartz measuring cuvette, (50 μ l on 4.5 cm² Transpore[™] tape), spread and immediately measured. The UV-blocking action of the formed films was examined in the spectrophotometer, uncoated Transpore[™] tape being stuck to a cuvette as reference. Over the measured range (450 - 250 nm), the result for the emulsion film was an absorption which was clearly below the absorption of the lipid particle dispersion (Diagram Fig. 11).

Amend the paragraph at page 29, lines 6-19;

Lipid particles were produced analogously to Example 9. The composition was 10 % lipid, 1.2 % surfactant, 10 % UV blocker relative to the lipid content, and water. Production of the lipids took place by dispersion in the molten state (75°C) with a high-speed Ultra-Turrax mixer (8000 revolutions per minute, 5 minutes) und alternatively with high pressure homogenization (conditions as in Example 1). The particle size with the mixer was 12 μ m (d50 %), the particle size after high pressure homogenization 138 nm (d50 %). Both lipid particle dispersions were applied to Transpore[™] tape as described in Example 3 and, after drying at room temperature, immediately measured in the UV spectrophotometer. In

the whole UV range, the absorption of the microparticles was clearly below the absorption of the nanoparticles (Diagram Fig. 12).

Amend the paragraph at page 29, 9 lines from bottom to page 30, line 3;

Lipid particles of 10 % cetyl palmitate, 1,2 % polyglycerol methylglucose distearate (Tego Care 450) und 10 % 2-hydroxy-4-methoxy-benzophenone (Eusolex 4360) (the latter relative to the lipid content) were produced according to Example 9, retinol palmitate being incorporated as a further constituent in a concentration of 0.2 % relative to the total mixture by joint melting-on with the lipid phase. The lipid particle dispersion was measured as film, analogously to Example 3, the lipid particle dispersion containing only UV blocker serving as reference. Over the whole measurement range, the lipid particles containing vitamin A palmitate showed only minor deviations from the reference (Diagram Fig. 13).

Amend the paragraph at page 30, lines 7-17;

Lipid particles of 10 % cetyl palmitate, 1.2 % polyglycerol methylglucose distearate (Tego Care 450) and 10 % 2-hydroxy-4-methoxy-benzophenone (Eusolex 4360) (the latter relative to the lipid content) were produced according to Example 9, tocopherol being incorporated as a further constituent in a concentration of 2 % relative to the total mixture by joint melting-on with the lipid phase. The lipid particle dispersion was measured as film, analogously to Example 3, the lipid particle dispersion containing only UV blocker serving as reference. Over the whole measuring range, the lipid particles containing vitamin E showed only minor deviations from the reference (Diagram Fig. 14).

Amend the paragraph at page 30, 11 lines from bottom to page 31, line 4;

A lipid particle dispersion was produced with cetyl palmitate and the surfactant polyglycerol methylglucose distearate (Tego Care 450) according to Example 1, highly-

dispersed silicon dioxide (Aerosil 200) being melted on in a concentration of 5 % relative to the lipid content jointly with the lipid phase, allowed to swell for 5 minutes at 75°C and thus incorporated. The pure lipid particle dispersion produced as described in Example 1 served as a comparison. The two formulations were applied to a Transpore[™] tape stuck to a quartz measurement cuvette (50 µl on 4.5 cm² Transpore[™] tape) spread and immediately measured. The UV-blocking action of the formed films was examined in the spectrophotometer uncoated Transpore[™] tape, being stuck onto a cuvette as a reference. The lipid particle dispersion, which additionally contained Aerosil, was recognizably more absorbent than the comparison formulation (Diagram Fig. 15).

Amend the paragraph at page 31, lines 8-20;

A lipid particle dispersion was produced with the UV blocker 2-hydroxy-4-methoxy-benzophenone (Eusolex 4360) (10 % relative to the lipid), analogously to Example 9, 5 % Aerosil 200, relative to the lipid, additionally being incorporated as in Example 15. The same formulation, but without Aerosil 200, served as a comparison. The two formulations were applied to a Transpore[™] tape stuck to a quartz measuring cuvette (50 µl on 4.5 cm² Transpore[™] tape) spread and immediately measured. The UV-blocking action of the formed films was examined in the spectrophotometer uncoated Transpore[™] tape being stuck onto a cuvette as a reference. The lipid particle dispersion, which additionally contained Aerosil, was more absorbent than the comparison formulation (Diagram Fig. 16).

Amend the paragraph at page 31, 9 lines from bottom to page 32, line 3;

The self-absorption of the UV blocker 2-hydroxy 4-methoxy-benzophenone (Eusolex 4360) was computed by subtracting the absorption of the Miglyol - Tego Care emulsion (s. Example 3) from the absorption of the Eusolex 4360-containing Miglyol-Tego Care emulsion (s. Example 11) over the 450 to 250 nm range. These values were added to the absorption of pure lipid particles (s. Example 3) to obtain the theoretical absorption of lipid

particles containing UV blockers. However, if the theoretical absorption of lipid particles which contain Eusolex 4360 is compared with that measured in practice, a synergism is recorded, as the theoretical absorption is lower over the whole UV range (Diagram Fig. 17).

Amend the paragraph at page 32, lines 5-10;

A lipid particle dispersion consisting of 10% cetyl palmitate, 1.2 % Tego Care 450 and water, produced analogously to Example 1, was applied to double-sided adhesive Sello-tape, allowed to dry overnight and examined with an S 360 scanning electron microscope from Cambridge Instruments. A sealed lipid film was detected (Diagram Fig. 18).